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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,723

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Johannes Reinschke

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
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EXAMINER

JENNINGS, STEPHANIE M

ART UNIT

PAPER NUMBER

3725

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,723	Applicant(s) REINSCHKE, JOHANNES	
	Examiner Stephanie Jennings	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 15-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginzburg US Patent No. 4,771,622 in view of Gramckow et al. US Patent No. 6,697,699.
4. In regard to **claim 15**, Ginzburg teaches a method for operating a method strip mill train, comprising: determining a desired flatness via a material flow model (column 5, lines 8-13), measuring an actual flatness of the metal strip near a discharge point of the mill train, and translating the measured metal strip flatness (U_1-U_8) into flatness values (I_2-I_8) (column 6, lines 55-60).
5. Ginzburg discloses a flatness monitoring system for strip metal, but does not disclose such a system with iterative calculations.
6. In regard to **claim 15**, Gramckow teaches controlling a roll stand of the mill train via a strip shape model (3) that uses the desired and actual flatness

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values as inputs to reduce the difference between the actual flatness and the desired flatness of the metal strip (column 2, line 59- column 3, line 11). The examiner is reading the visible strip flatness of the instant application as the “actual flatness” and the intrinsic strip flatness as the “desired strip flatness” based on the definition of the terms from paragraphs 7 and 8 of the applicant’s specification.

7. It would have been obvious to one skilled in the art to provide the iterative calculation of Gramckow's method with Ginzburg's method because iterative calculations increase the accuracy of the final product.

8. In regard to **claim 16**, Ginzburg teaches the method as claimed in claim 15, wherein the actual flatness of the metal strip is measured at the discharge point of the mill train (column 5, lines 8-13 and column 6, lines 55-60).

9. In regard to **claim 17**, Ginzburg teaches the method as claimed in claim 15, wherein the actual flatness is determined as a bulge pattern (column 5, lines 8-13 and column 6, lines 55-60).

10. In regard to **claim 18**, Ginzburg teaches the method as claimed in claim 17, wherein the bulge pattern is three-dimensional (column 5, lines 8-13 and column 6, lines 55-60).

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ginzburg in view of Gramckow as applied to claim 18 above, and further in view of Flormann US Patent No. 6,480,802.

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12. Ginzburg in view of Gramckow does not disclose a system that allows for strip shape pattern determination from a variable of the individual tracks selected from wavelength, amplitude, and phase offset.

13. In regard to **claim 19**, Flormann teaches the method as claimed in claim 18, wherein a relative length of individual tracks of the metal strip is evaluated to determine the strip shape along with a variable of the individual tracks selected from the group consisting of: wavelength, amplitude and phase offset (column 2, lines 10-38).

14. It would have been obvious to one skilled in the art to provide Ginzburg's method with Flormann's method for calculation of the strip shape pattern because Flormann's invention allows for reduced complexity of flatness measurement and use for retrofitting current devices.

15. Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginzburg in view of Gramckow and in further view of Flormann as applied to claim 19 above, and further in view of Pirlet US Patent No. 4,541,723.

16. Ginzburg in view of Gramckow and in further view of Flormann does not disclose a multi-track laser measuring device.

17. In regard to **claim 20**, Pirlet teaches the method as claimed in claim 19, wherein a laser measuring device is used to determine the desired flatness of the metal strip (column 5, lines 8-13 and column 6, lines 55-60).

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18. In regard to **claim 21**, Pirlet teaches the method as claimed in claim 20, wherein the laser measuring device is a multi-track laser measuring device (column 2, lines 22-45).

19. In regard to **claim 22**, Ginzburg teaches the method as claimed in claim 20, wherein the actual flatness of the metal strip is measured topographically (column 5, lines 8-13 and column 6, lines 55-60).

20. In regard to **claim 23**, Ginzburg teaches the method as claimed in claim 22, wherein the values for the desired flatness are translated into values for the actual flatness using the strip shape model (column 5, lines 8-13 and column 6, lines 55-60).

21. In regard to **claim 24**, Ginzburg teaches the method as claimed in claim 23, wherein the flatness values are translated in real-time (column 5, lines 8-13 and column 6, lines 55-60).

22. In regard to **claim 25**, Gramckow teaches the method as claimed in claim 24, wherein, the flatness values are translated in real-time via an approximation function (column 2, line 64-column 3, line 4).

23. It would have been obvious to one skilled in the art to provide the method of Ginzburg in view of Gramckow in further view of Flormann with the multi-track measuring system of Pirlet because the use of a multi-track laser measuring device allows for increased accuracy from repeated measurements and localized measurements. Additionally, the inventions have the commonality of use in measurement of planarity of metal products.

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24. Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginzburg in view of Gramckow in further view of Flormann in further view of Pirlet as applied to claim 25 above, and further in view of Zhang US Patent No. 5,927,117 in view of Schmid US Patent No. 5,855,131.

25. Ginzburg in view of Gramckow does not disclose an applied temperature distribution on the strip.

26. In regard to **claim 26**, Zhang discloses the metal strip shape pattern based on the strip flatness is determined via the strip shape model (column 1, lines 31-67).

27. In regard to **claim 26**, Schmid teaches the method as claimed in claim 25, by applying an assumed temperature distribution in the transverse direction of the metal strip (column 3, line 64-column 4, line 21).

28. In regard to **claim 27**, Pirlet teaches the method as claimed in claim 26, wherein the actual flatness of the metal strip is measured by a laser measuring device (column 2, lines 22-45).

29. In regard to **claim 28**, Pirlet teaches the method as claimed in claim 27, wherein the laser measuring device is a multi-track laser measuring device (column 2, lines 22-45).

30. In regard to **claim 29**, Ginzburg teaches the method as claimed in claim 27, wherein a flatness limit value is predefined at points to control the mill train (column 2, lines 51-55).

31. It would have been obvious to one skilled in the art to provide an applied a specific temperature distribution as cited in Schmid and a strip model as cited in

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Zhang to Ginzburg in view of Gramckow's method because applying a specific temperature distribution leads to favorable temperature distribution during strip production.

Conclusion

32. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephanie Jennings whose telephone number is (571) 270-7392. The examiner can normally be reached on Monday-Thursday, 7 am - 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dana Ross can be reached on (571) 272-4480. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J./
Examiner, Art Unit 3725
December 15, 2009

/Dana Ross/
Supervisory Patent Examiner, Art
Unit 3725